

C) Amendments to the Specification

Applicant respectfully requests that the specification be amended by replacement of the first full paragraph on page 10, lines 6-23, of the application as filed, as follows:

A variant on the embodiment shown in FIGS. 4 and 5 is illustrated in FIG. 8. In this embodiment the mandrel supports both the electrical cable and the inductive couplers. As illustrated in FIG. 8, inductive coupler elements 81 and 82 are supported on a mandrel 86 83 that carries electrical cable 87 84 and is inserted in each pipe joint, preferably while it is still on the pipe rack. The mandrel is designed to support and protect the cable that connects the two inductive coupler elements of the wired pipe joint. The pipe joint provides structural support for mandrel 86 83. The mandrel is formed as an elongated section from a lightweight cylinder of fiber-reinforced composite or sheet metal sliced lengthwise. When not enclosed by the pipe joint, the mandrel has a diameter that is larger than the internal diameter of the pipe joint. As illustrated in FIG. 8, mandrel 83 with its cable 84 is inserted in pipe joint 85. (See also FIG. 5, showing lightweight mandrel 26 inserted in elongate tubular shank 25.) After the mandrel is inserted, the elasticity of its semicircular cross section pushes against the wall of the pipe joint bore and holds it in place. Other methods, such as clips or springs, could be also used. FIG. 8 is a cross section view of a wired pipe joint having first and second flux-loop low-loss inductive couplers similar to those shown in FIG. 1. FIG. 8 also locates first and second sealing faces 88 and 89 with respect to inductive coupler elements 81 and 82.